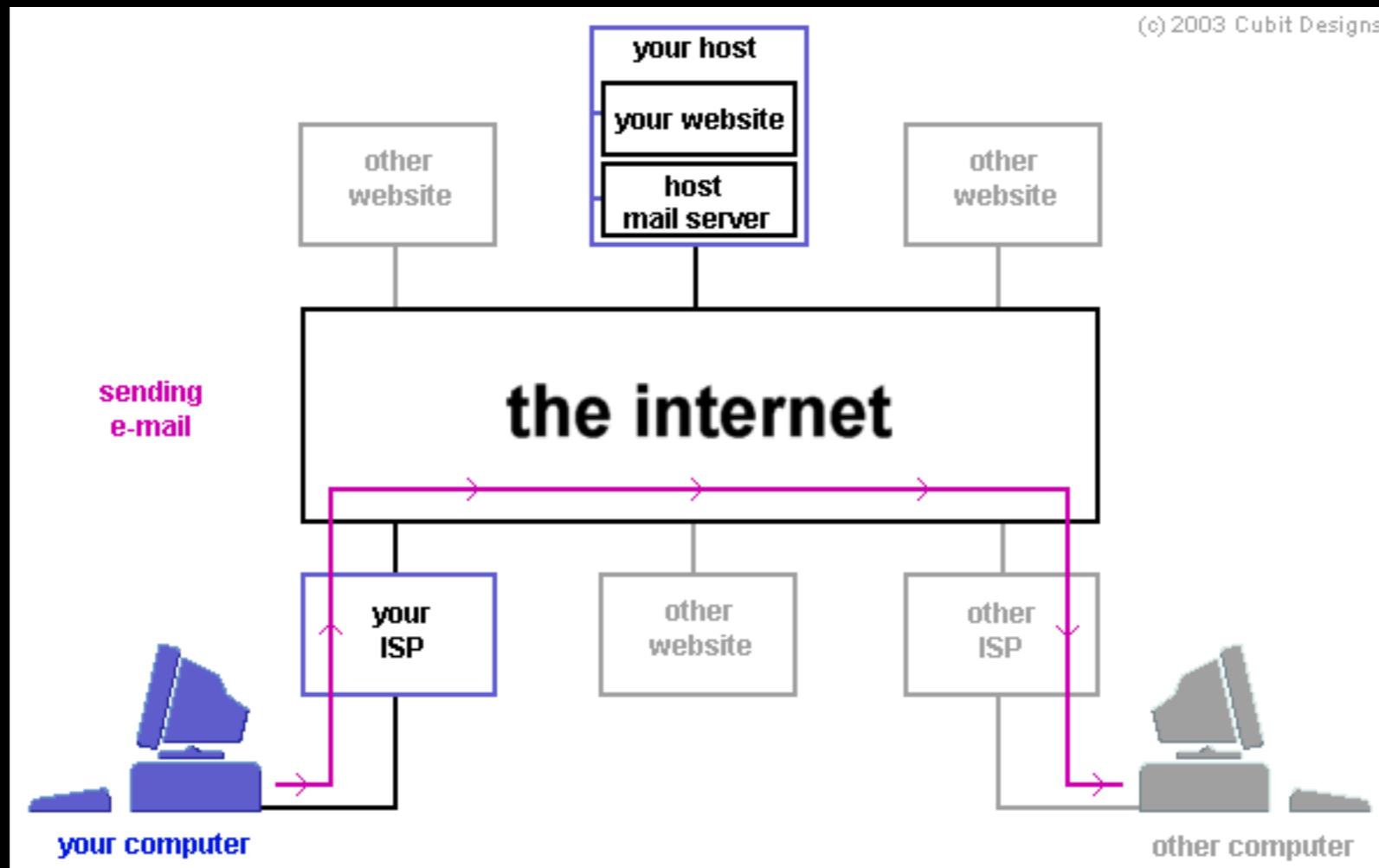
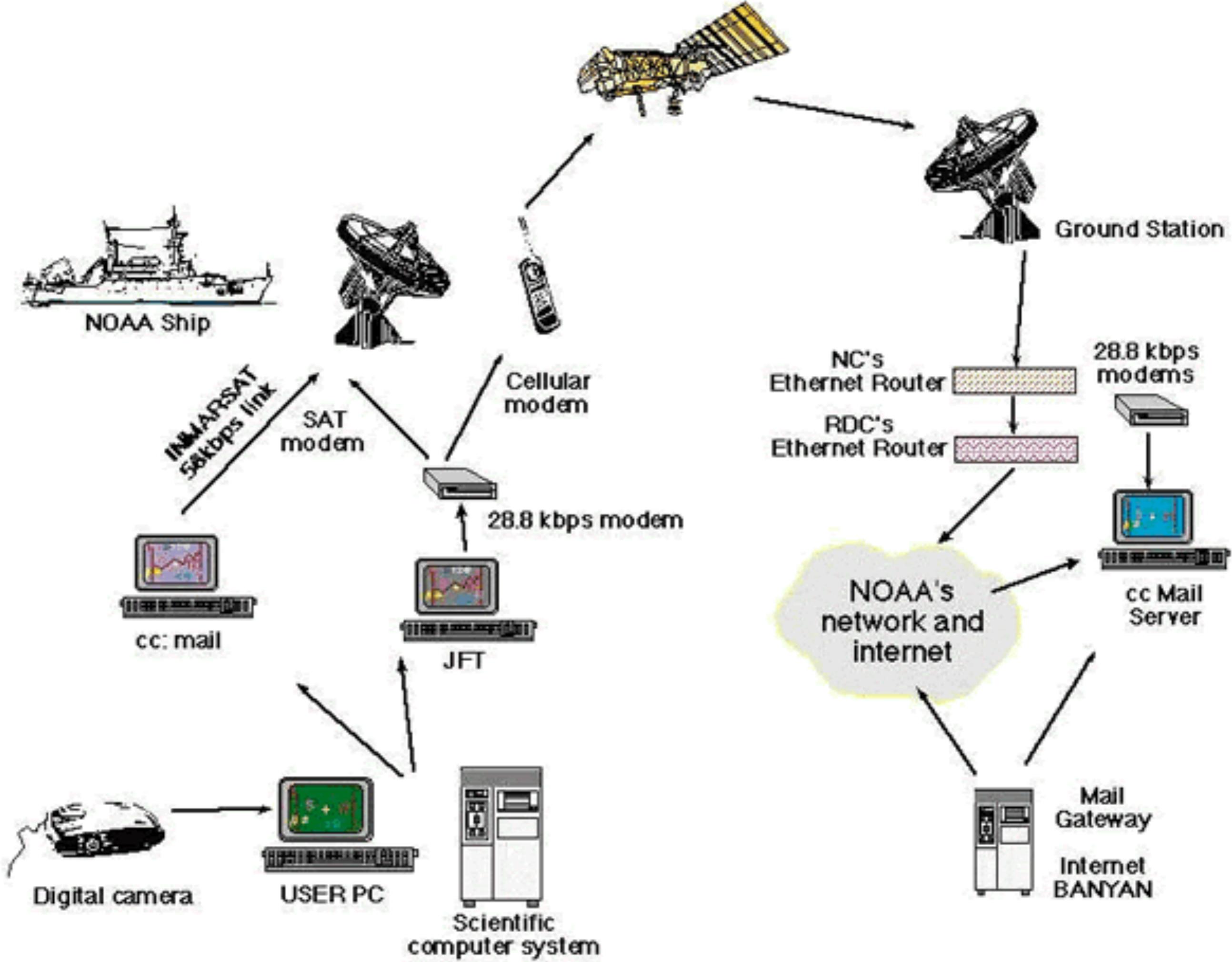
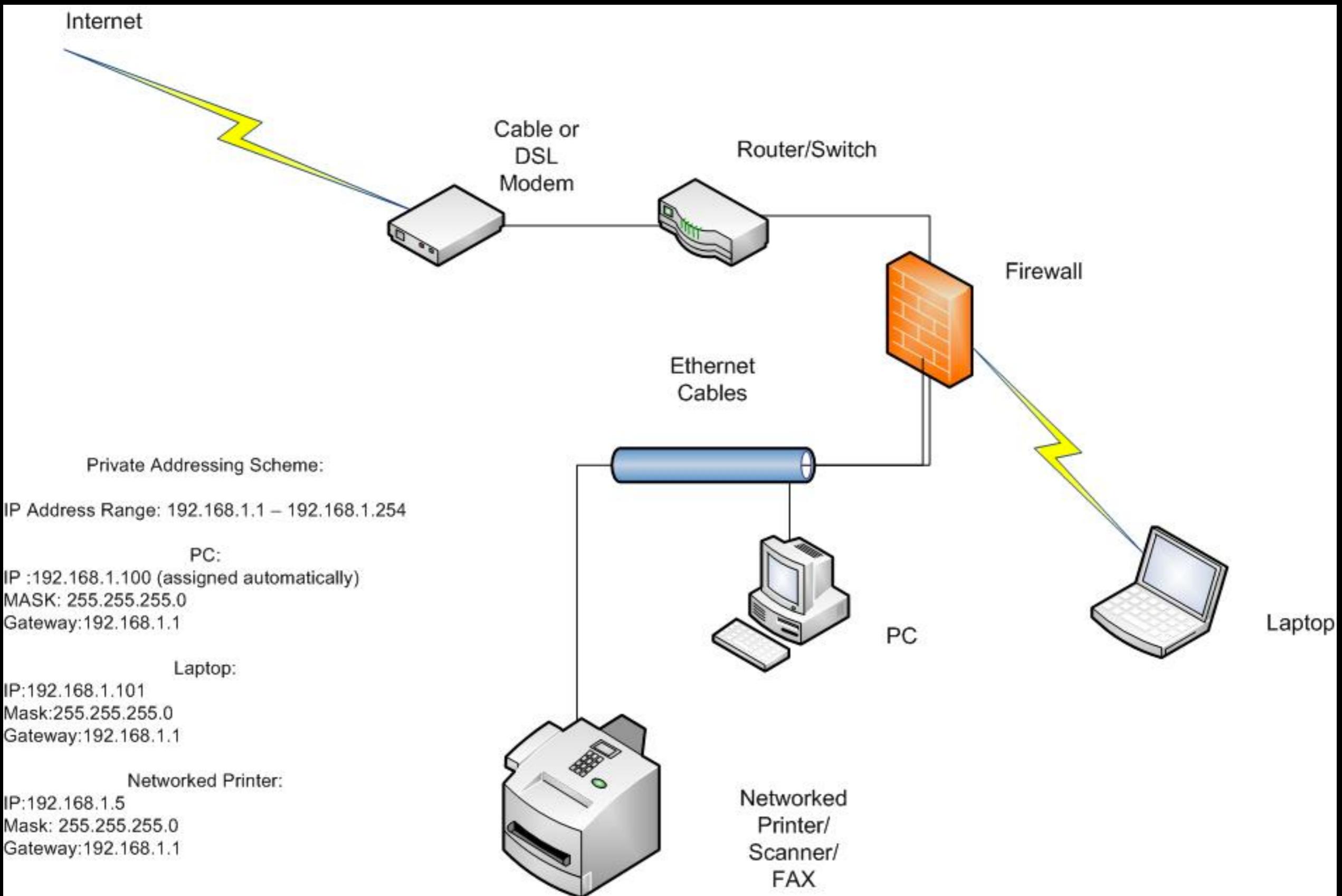
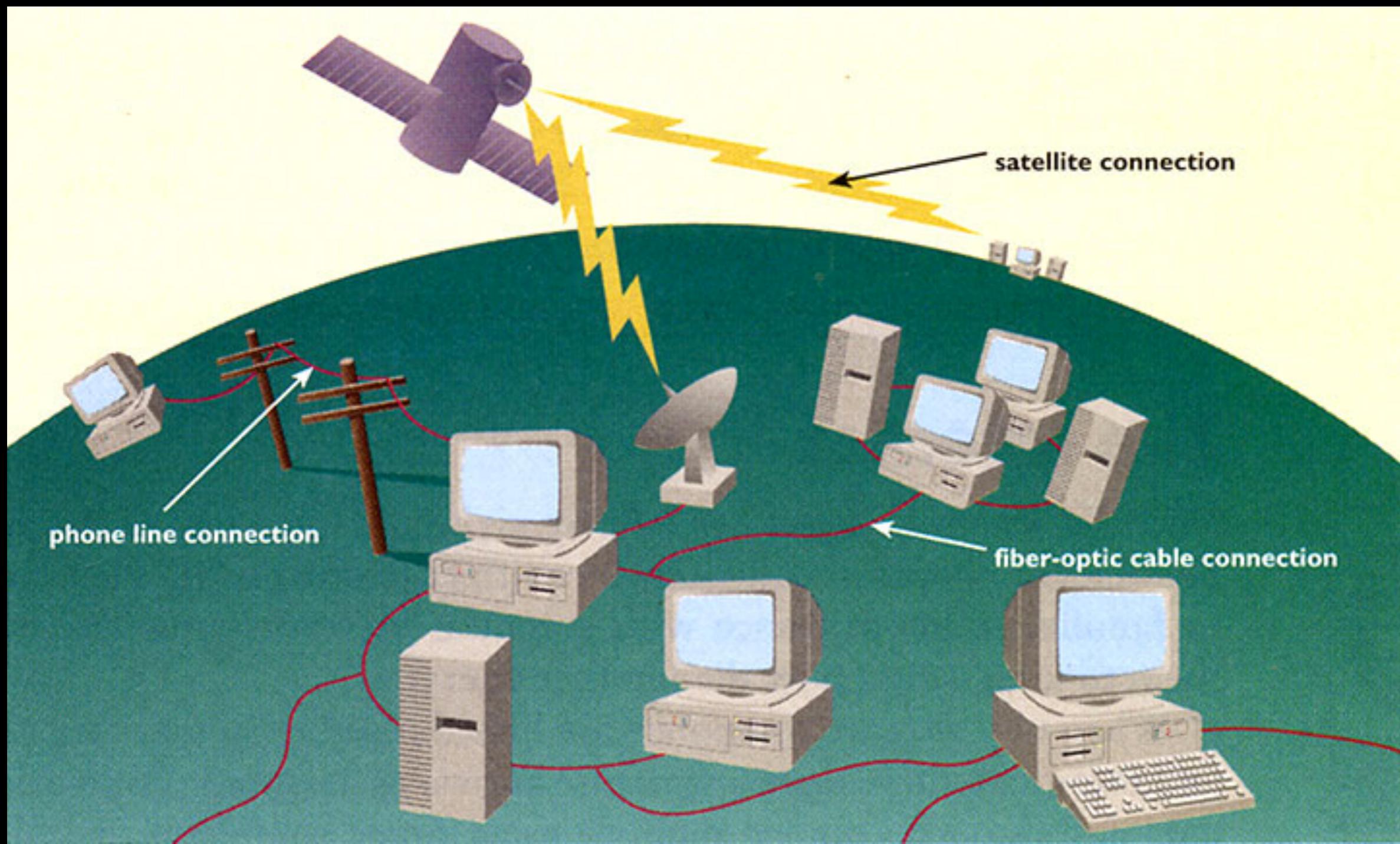


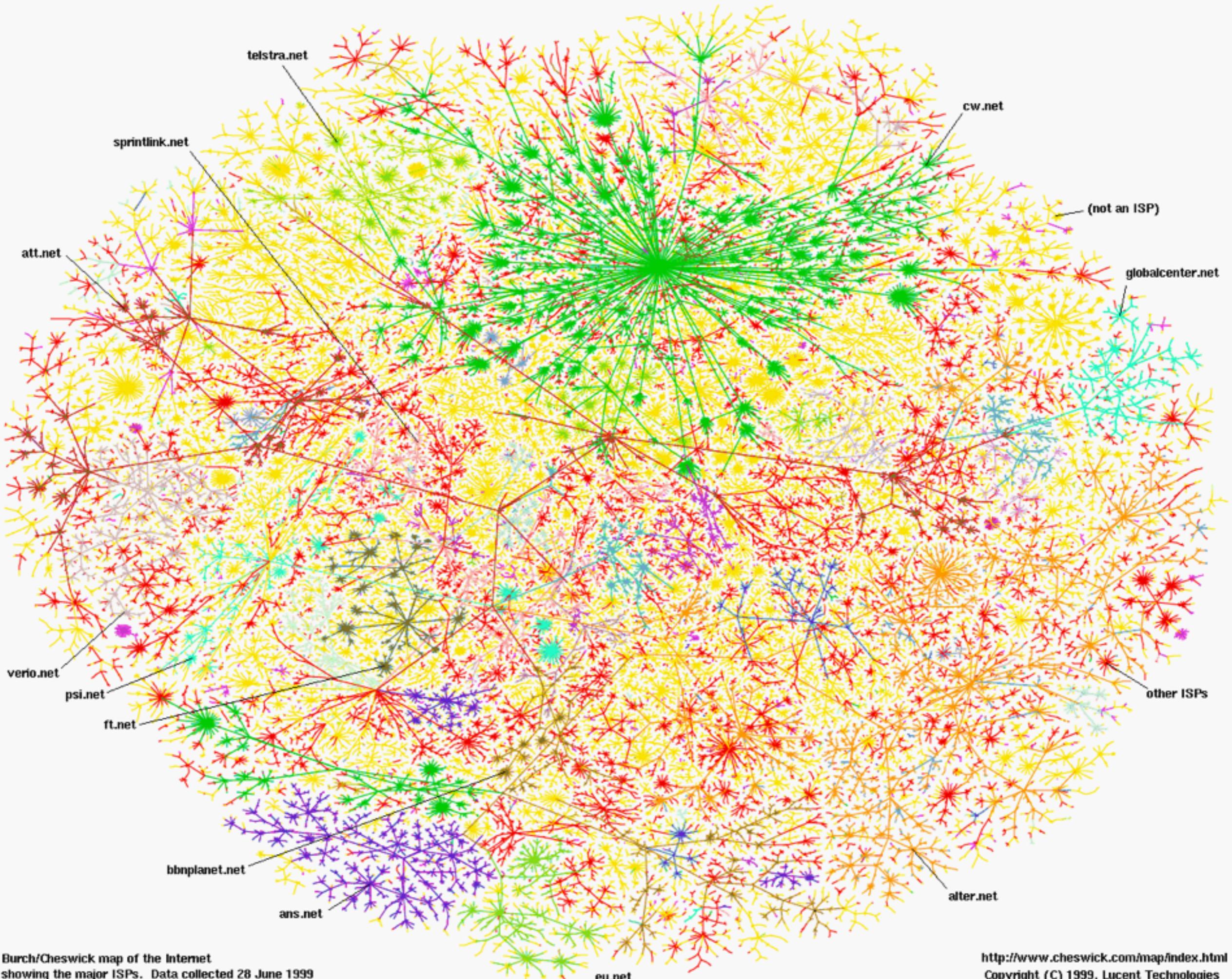
(c) 2003 Cubit Designs



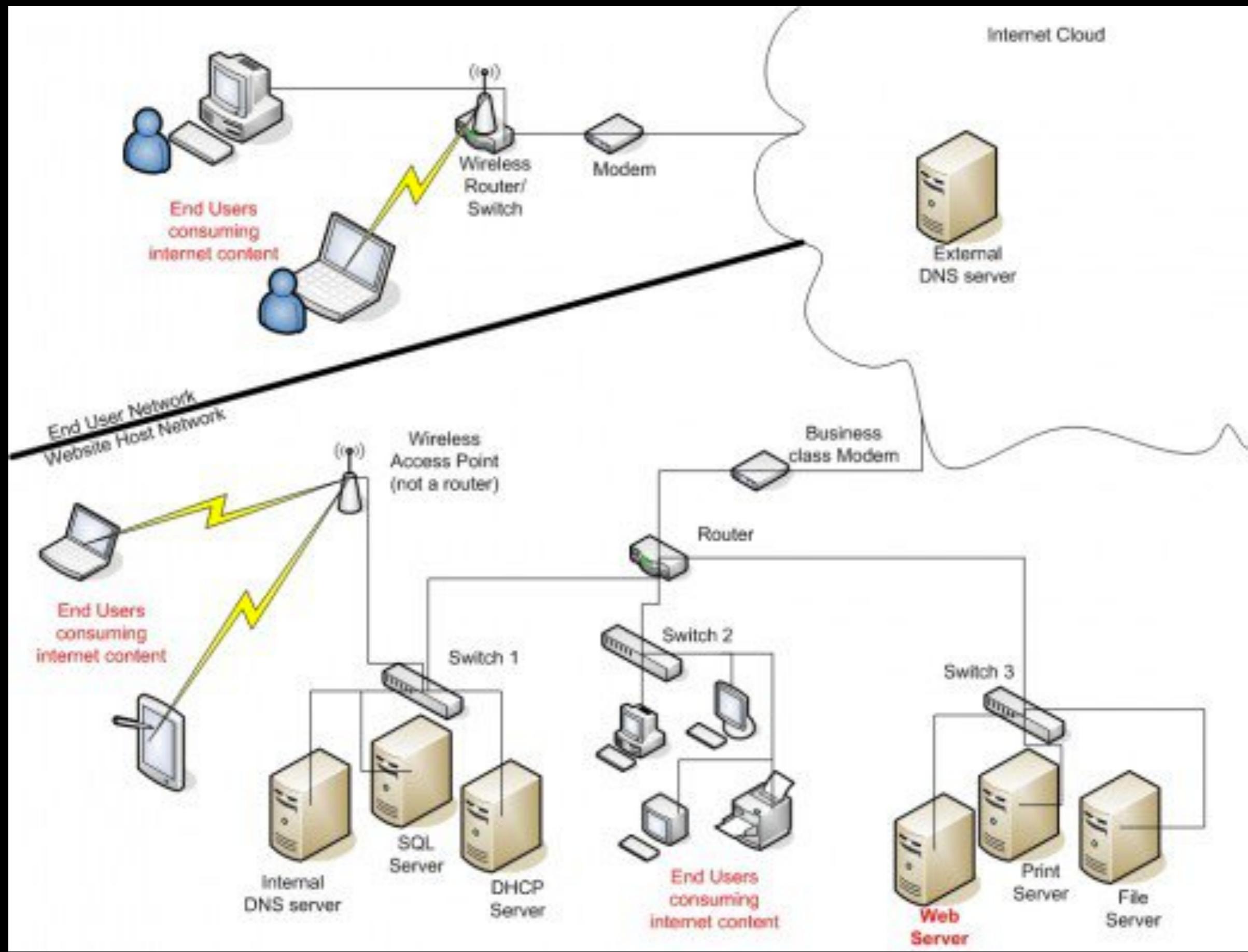








Burch/Cheswick map of the Internet
showing the major ISPs. Data collected 28 June 1999



The internet's undersea world

The vast majority of the world's communications are not carried by satellites but an altogether older technology: cables under the earth's oceans. As a ship accidentally wipes out Asia's net access, this map shows how we rely on collections of wires of less than 10cm diameter to link us all together.

Fibre-optic submarine cable systems

In-service

Planned

Damaged

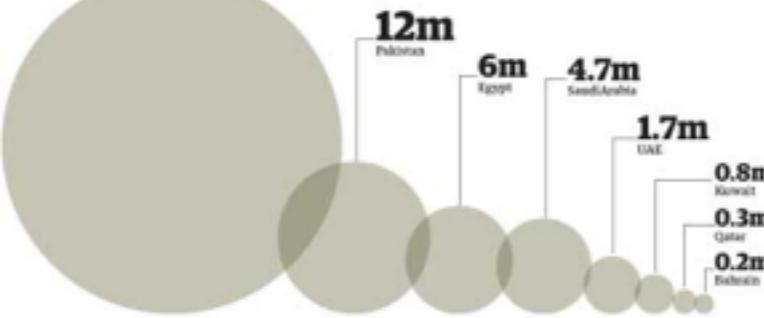
Cables with a minimum capacity of 1 gigabyte a second under construction or awaiting year-end 2007



Internet users affected by the Alexandria accident

The main countries affected in Wednesday's event

60m
India



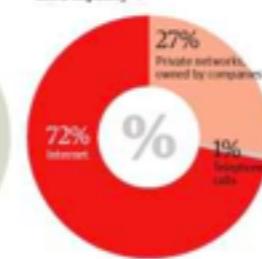
World cable capacity

Submarine cable operators light (bare) capacity on their systems to sell bandwidth to other carriers. Carriers buy extra capacity, mainly to hold in reserve. On the trans-Atlantic route 80% of the bandwidth is purchased, but only 29% is used

Capacity in terabytes a second

Total capacity
7.1 tbps
Purchased capacity
5.7 tbps
Used capacity
2.1 tbps

What makes up "used capacity"?



The longest submarine cables

The Seabone-2 system from Norden in Germany to Kejje, South Korea connects 32 different countries with 39 landing points

Seabone-2	39,000 km
Southern Cross	30,500 km
China-US	30,476 km
FLAG Europe-Asia	28,000 km
South America-3	25,000 km

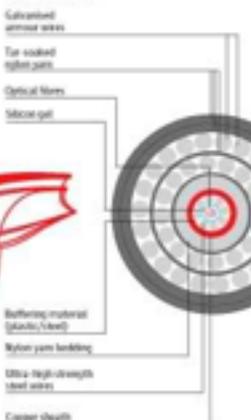
The world's cables in bandwidth

The first inter-continental telephony submarine cable system, TAT-1, connected North America to Europe in 1958 and had an initial capacity of 640,000 bytes per second. Since then, total trans-Atlantic cable capacity has soared to over 2 trillion bps

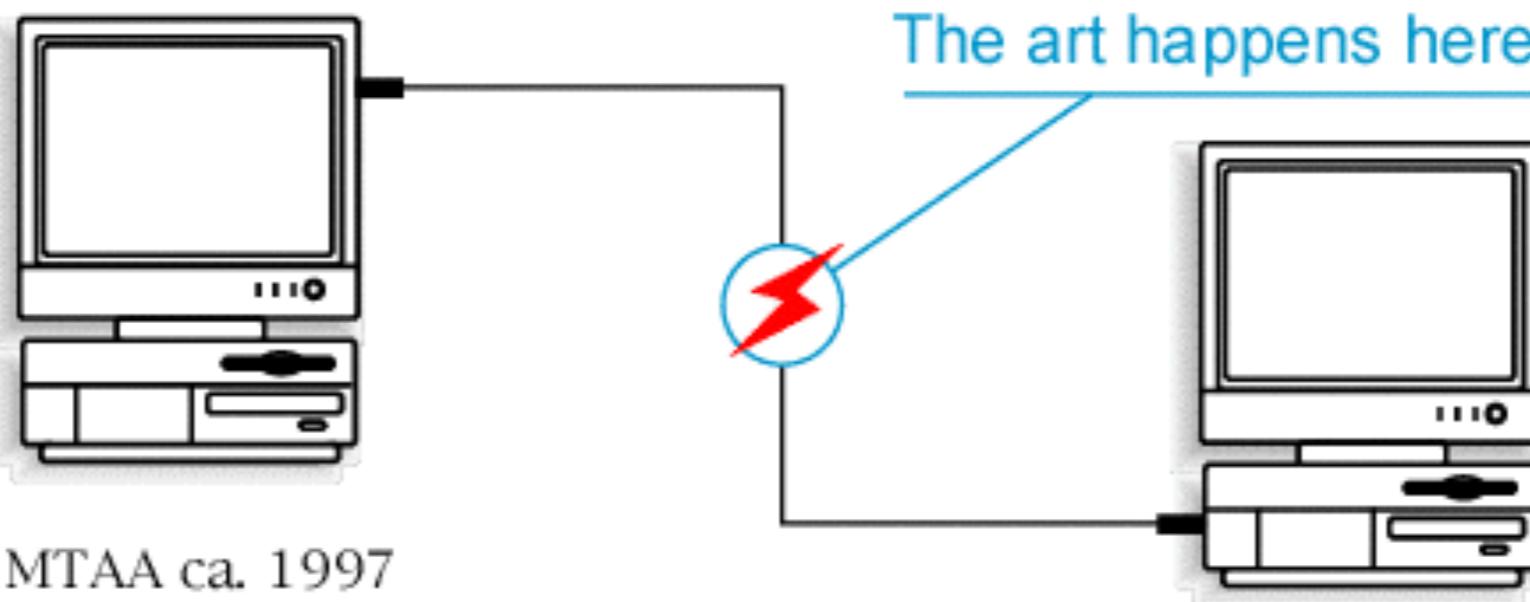


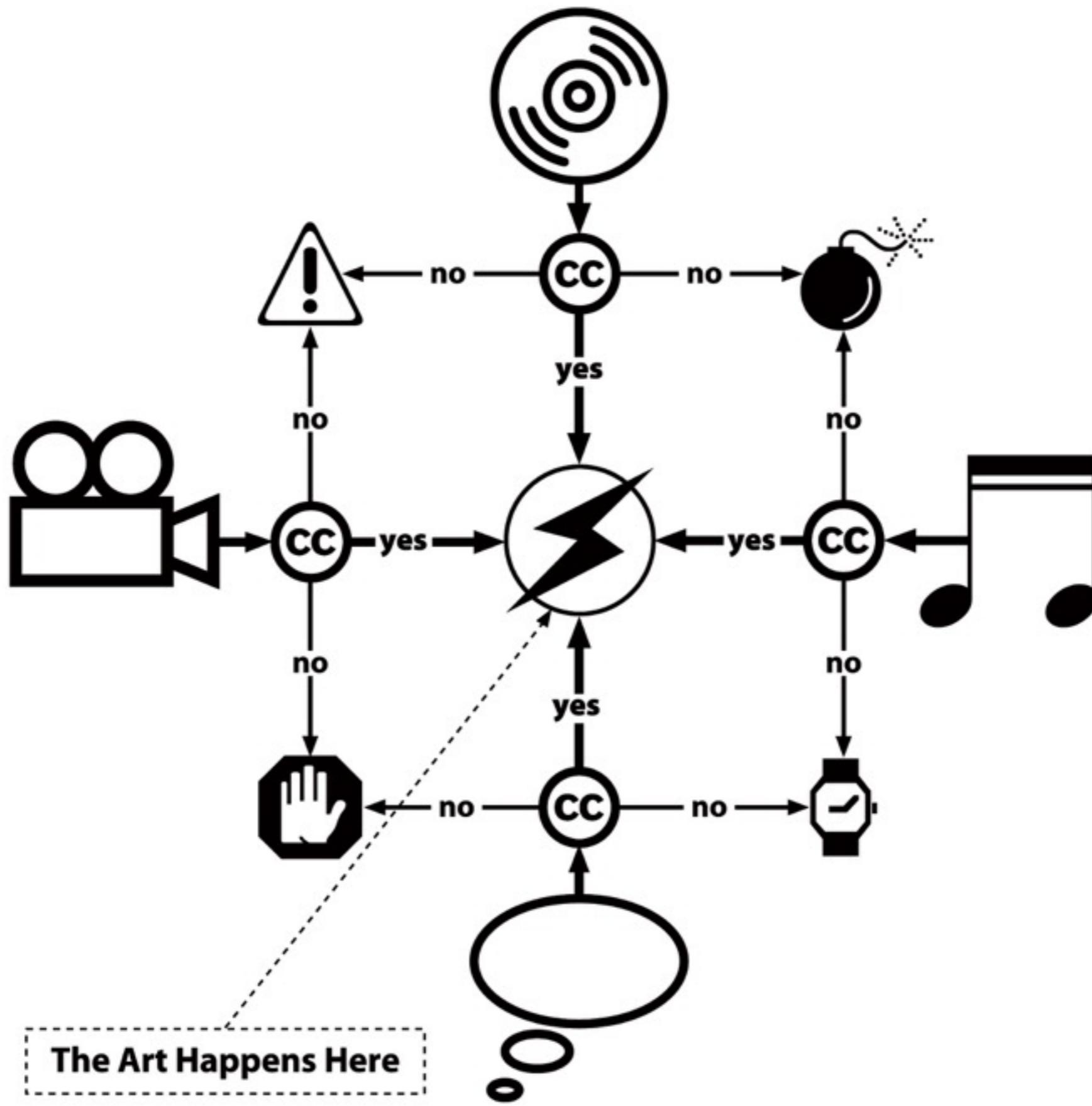
Cross-section of a cable

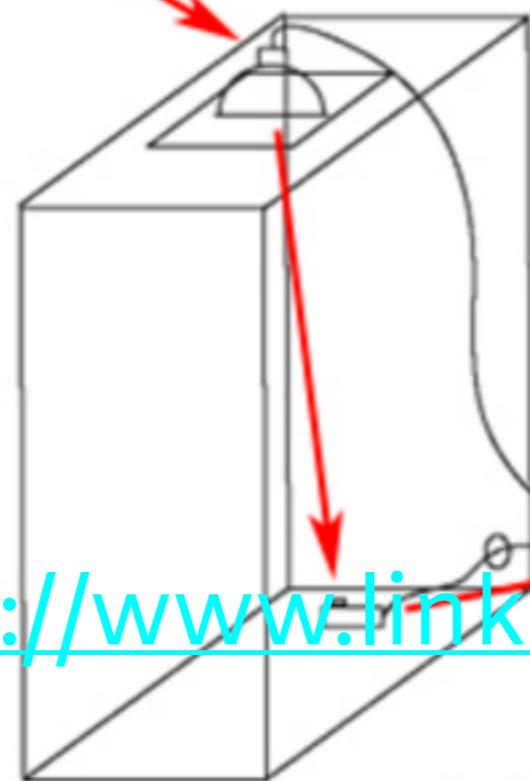
Cables of this strength are typically 60 mm in diameter and weigh over 10,000 kilograms a kilometer. In deeper waters, lighter and less insulated cables are used



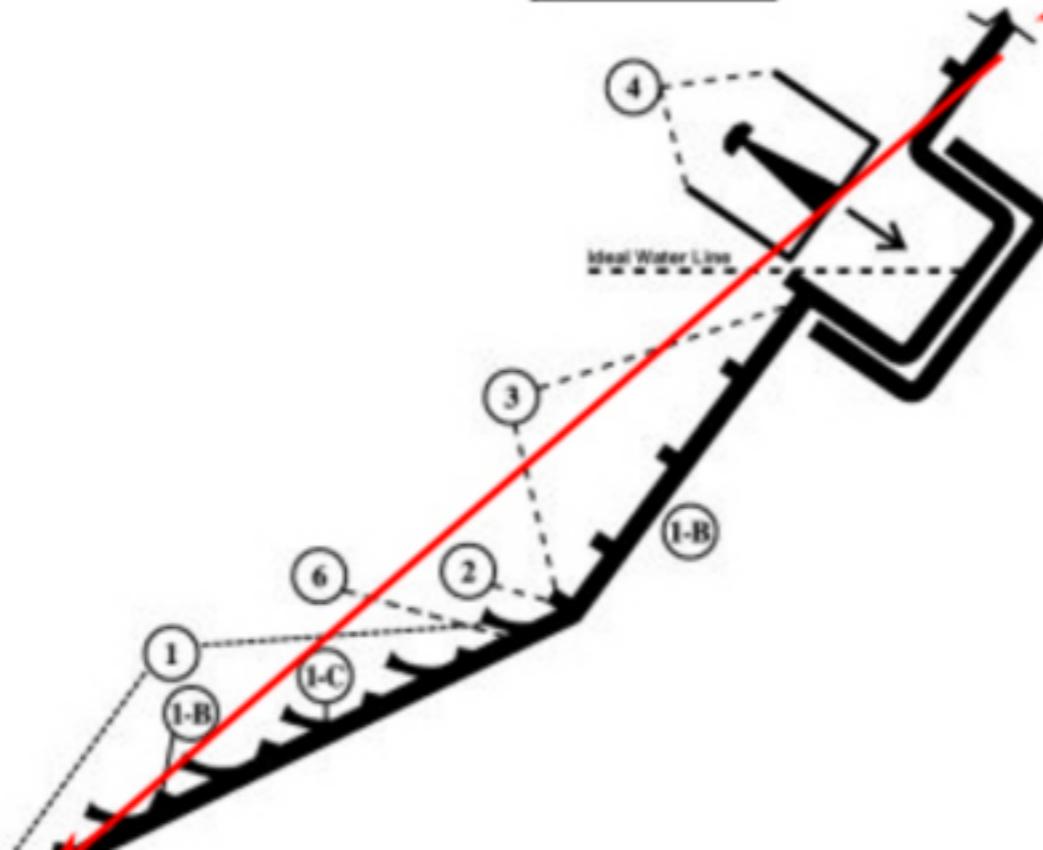
Simple Net Art Diagram



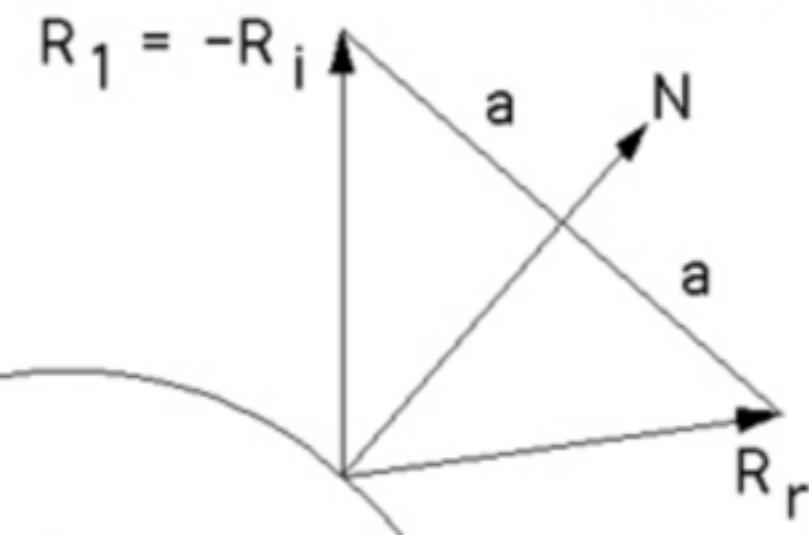
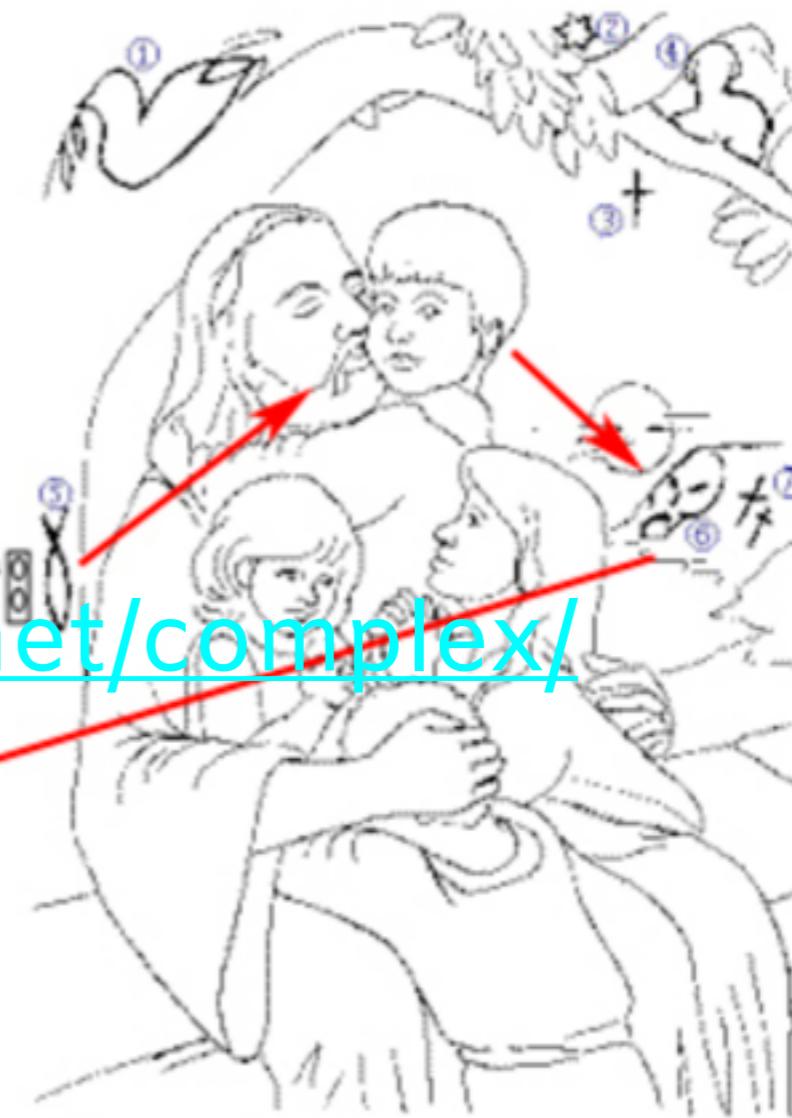




<http://www.linkoln.net/complex/>



→ = the art happens here





Ben Hooker and Tim Durfee

Create a “network diagram” drawing of your own. Interpret that however you like. Connect as many pieces as you can. At places you’re not sure, make your best guess. What your diagram lacks in accuracy, make up for in visual quality.

Get in a group and make one network diagram that combines the information from all three of your individual diagrams. Include and find a way to represent things you are unsure about.

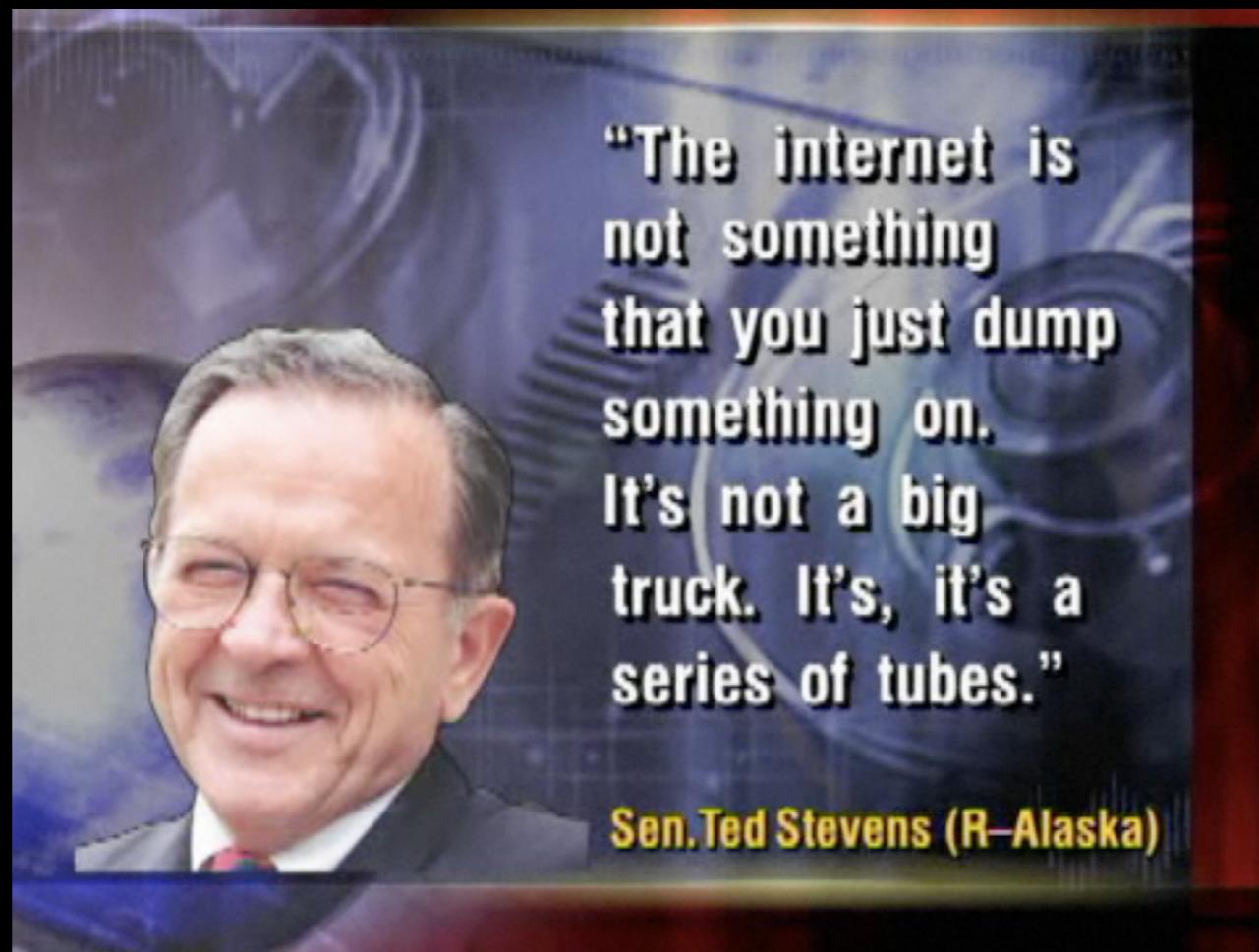
"I can feel (the yarn), tied around my neck and my waist. It's a tingly feeling."

Jono Brandel, fourth-year Design Media | Arts student



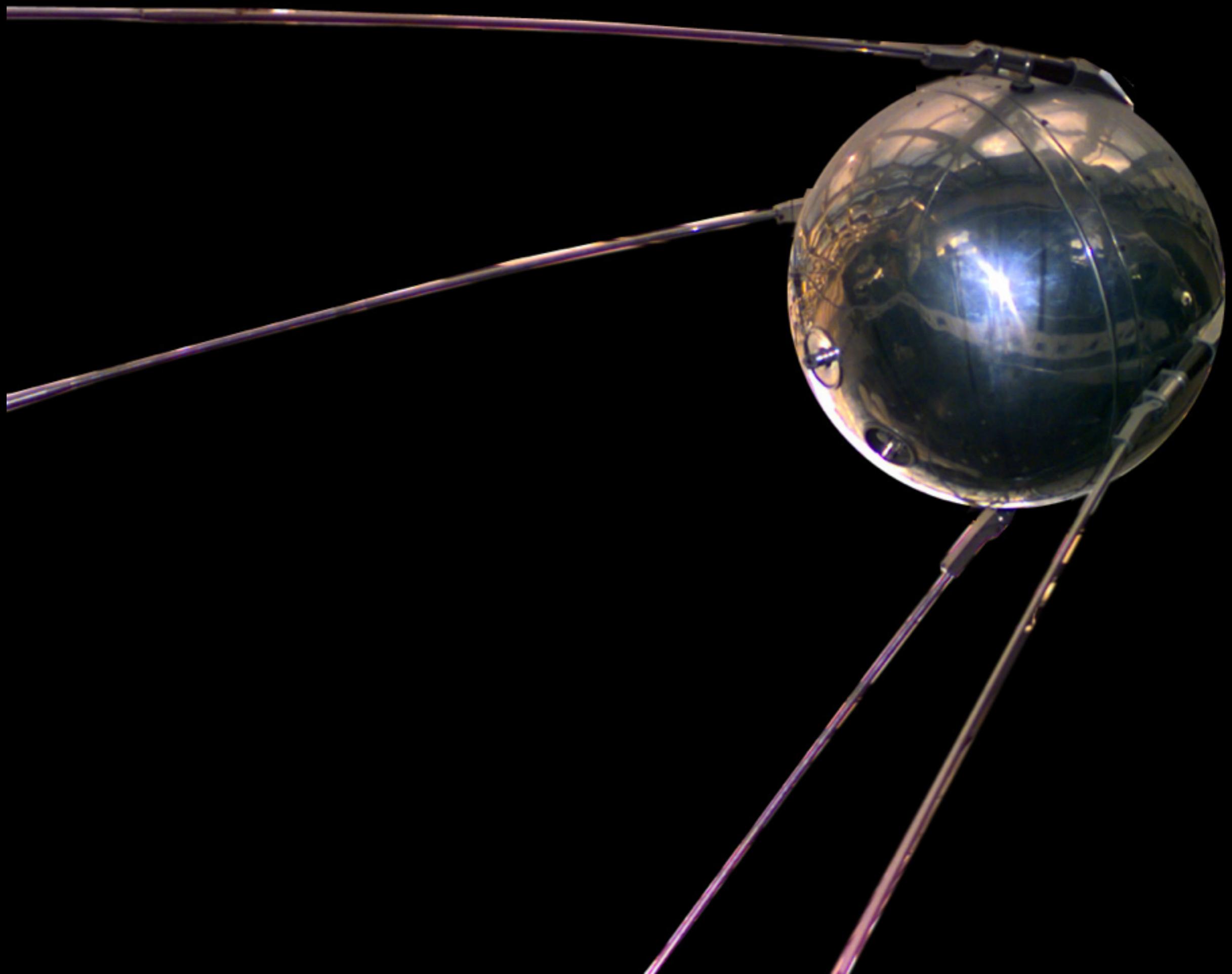
MICHAEL CHEN/DAILY BRUIN STAFF

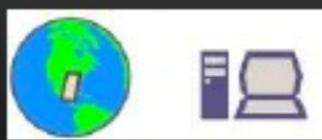
Design | Media Arts students encourage others to join their celebration of the birth of the Internet Monday, creating a yarn network to represent the connectivity of the Web. The first connection of two computer nodes, a packet switch between Stanford Research Institute and ARPANET at UCLA, occurred on Oct. 29, 1969.



**"The Internet is
not something
that you just dump
something on.
It's not a big
truck. It's, it's a
series of tubes."**

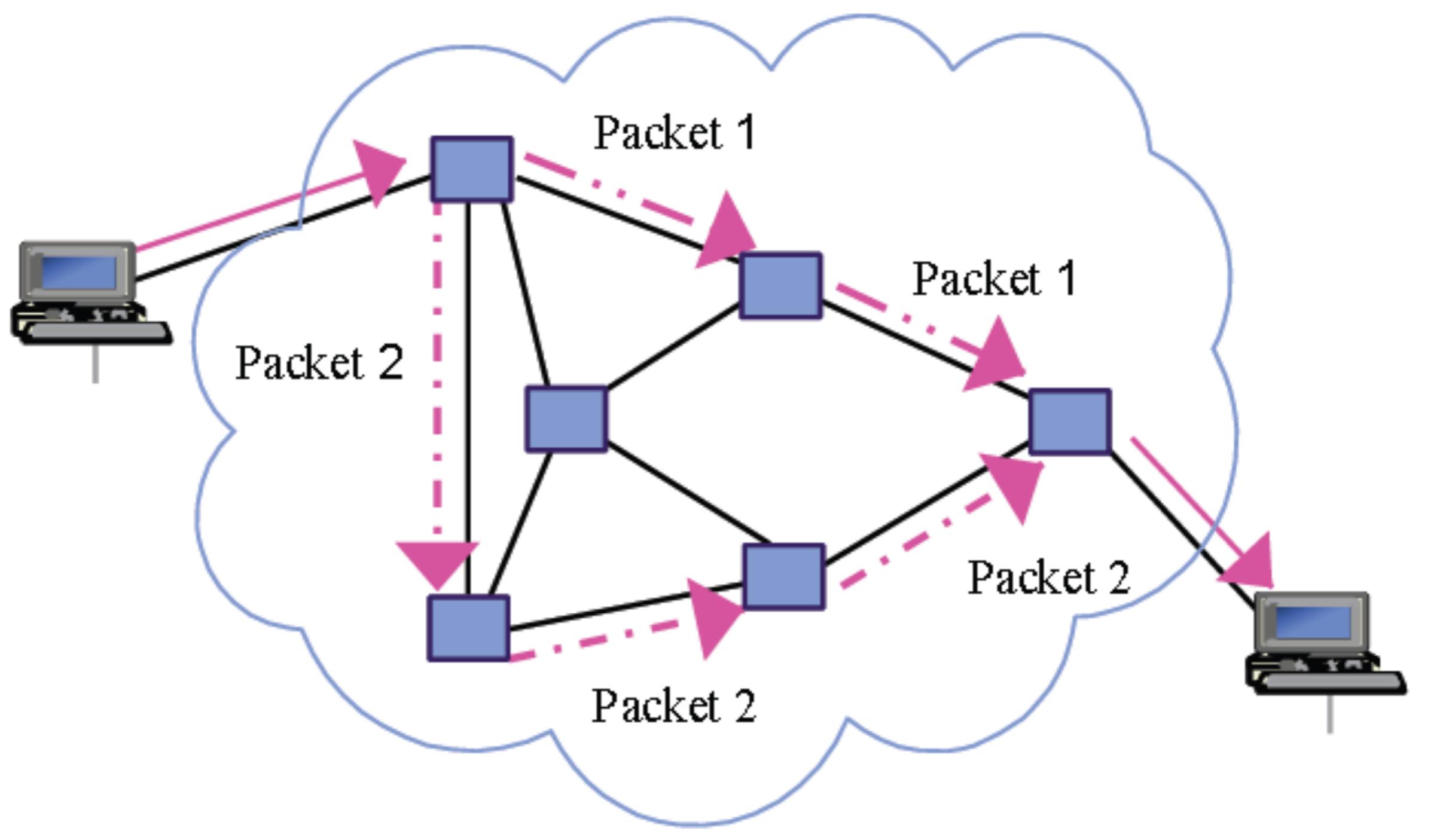
Sen.Ted Stevens (R-Alaska)





ARPANET

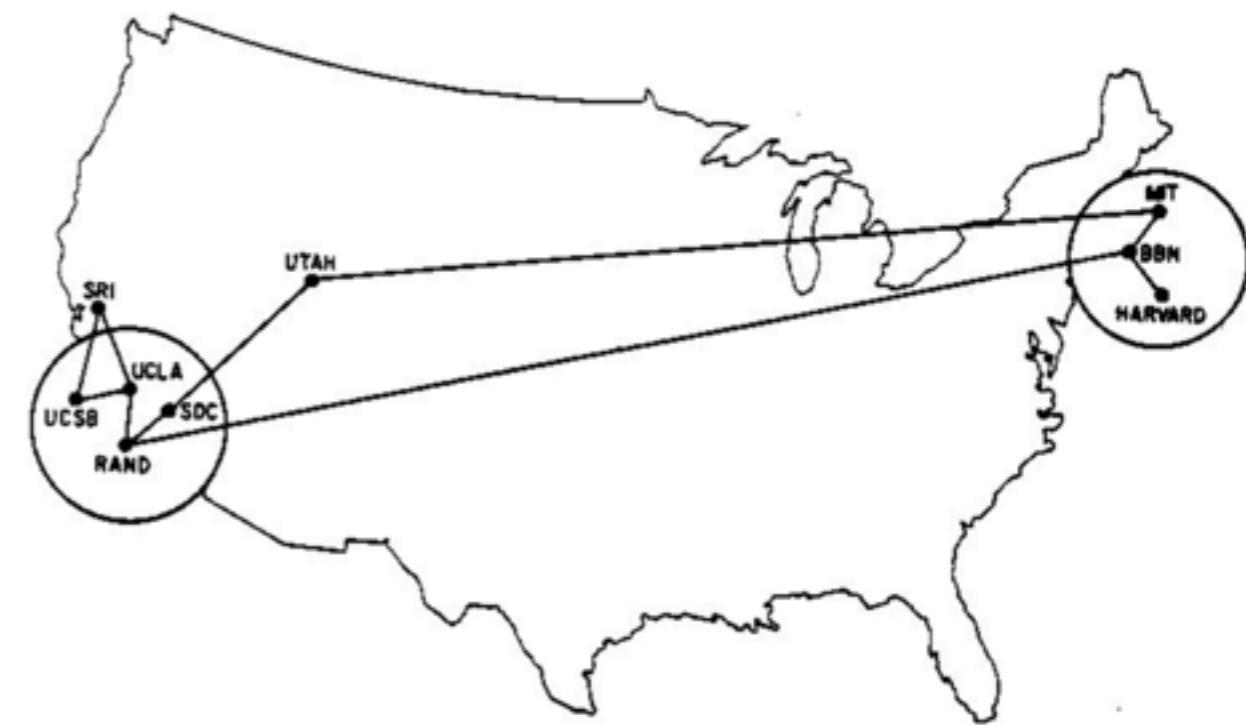




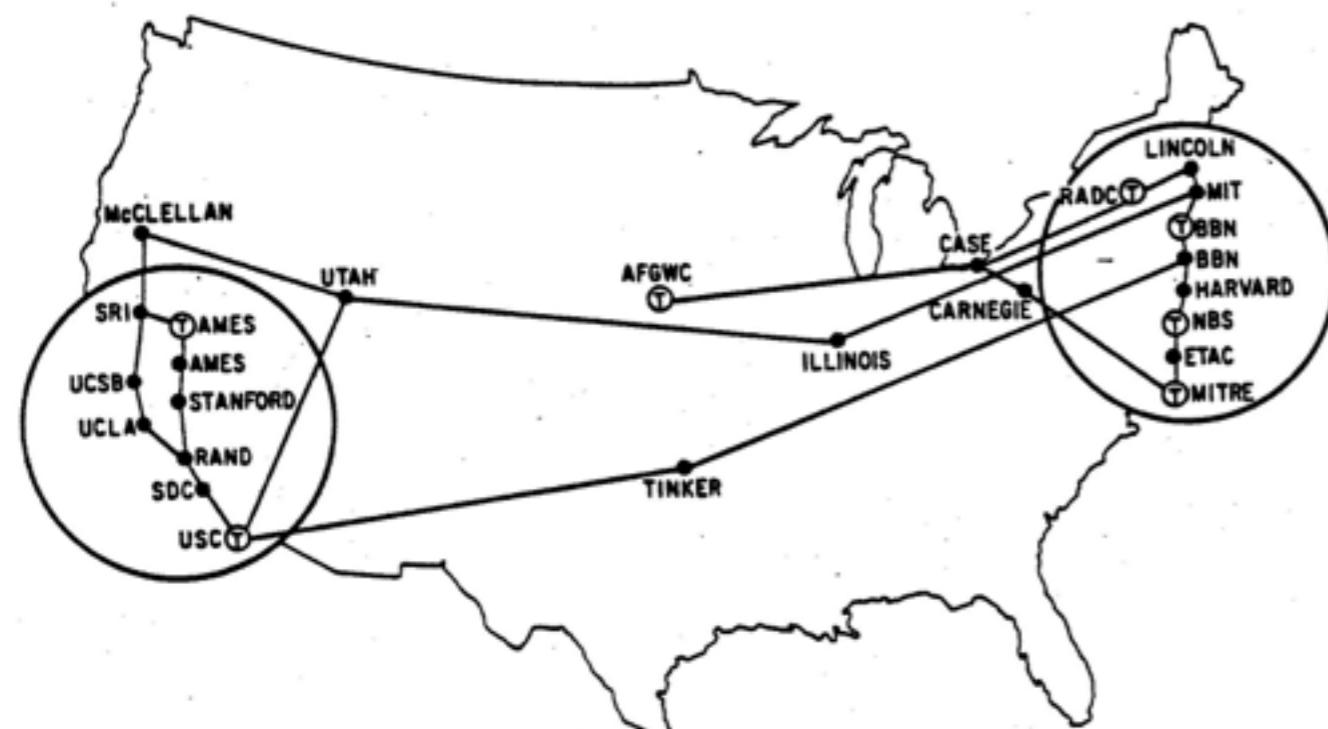
29 OCT 69 2100	LOADED OP. PROGRAM (SK) EDITOR BEN BARKER BBN	
22:30	TALKED TO SRF HOST TO HOST	CSIC
	LEFT OP. PROGRAM (SIC RUNNING AFTER SENDING A HOST DEAD MESSAGE TO IMP.	



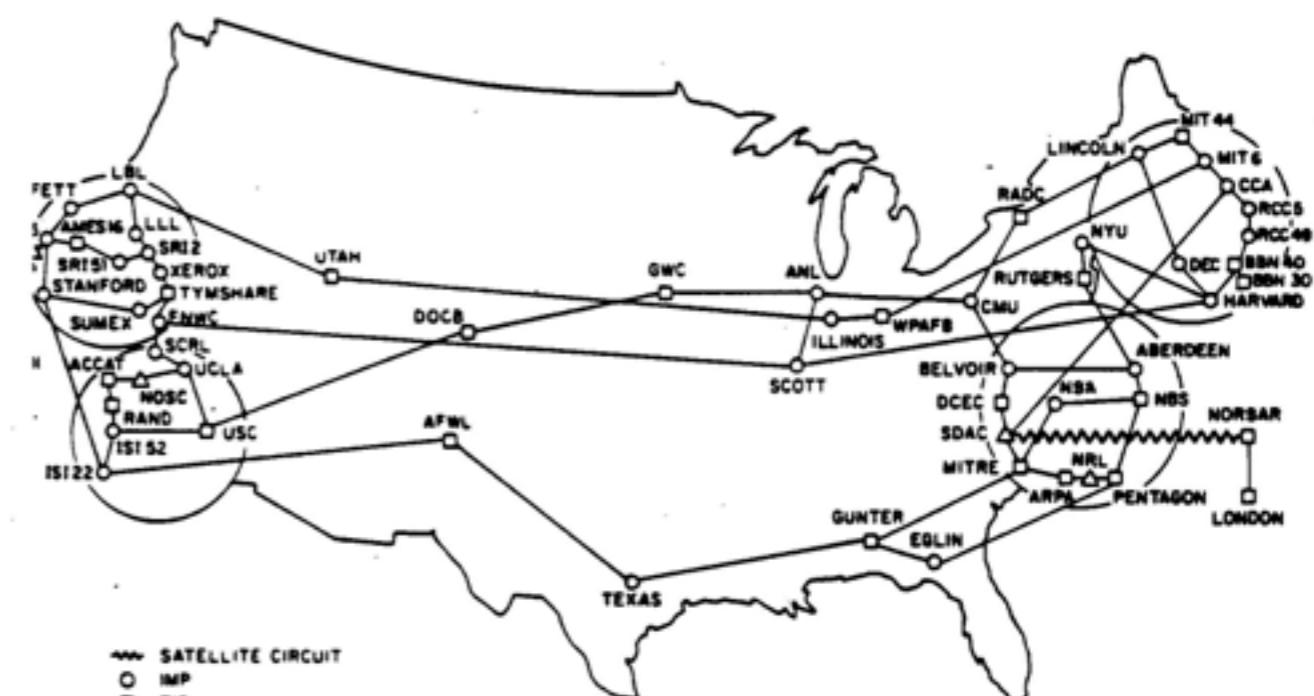
Dezember 1969



Juni 1970



März 1972

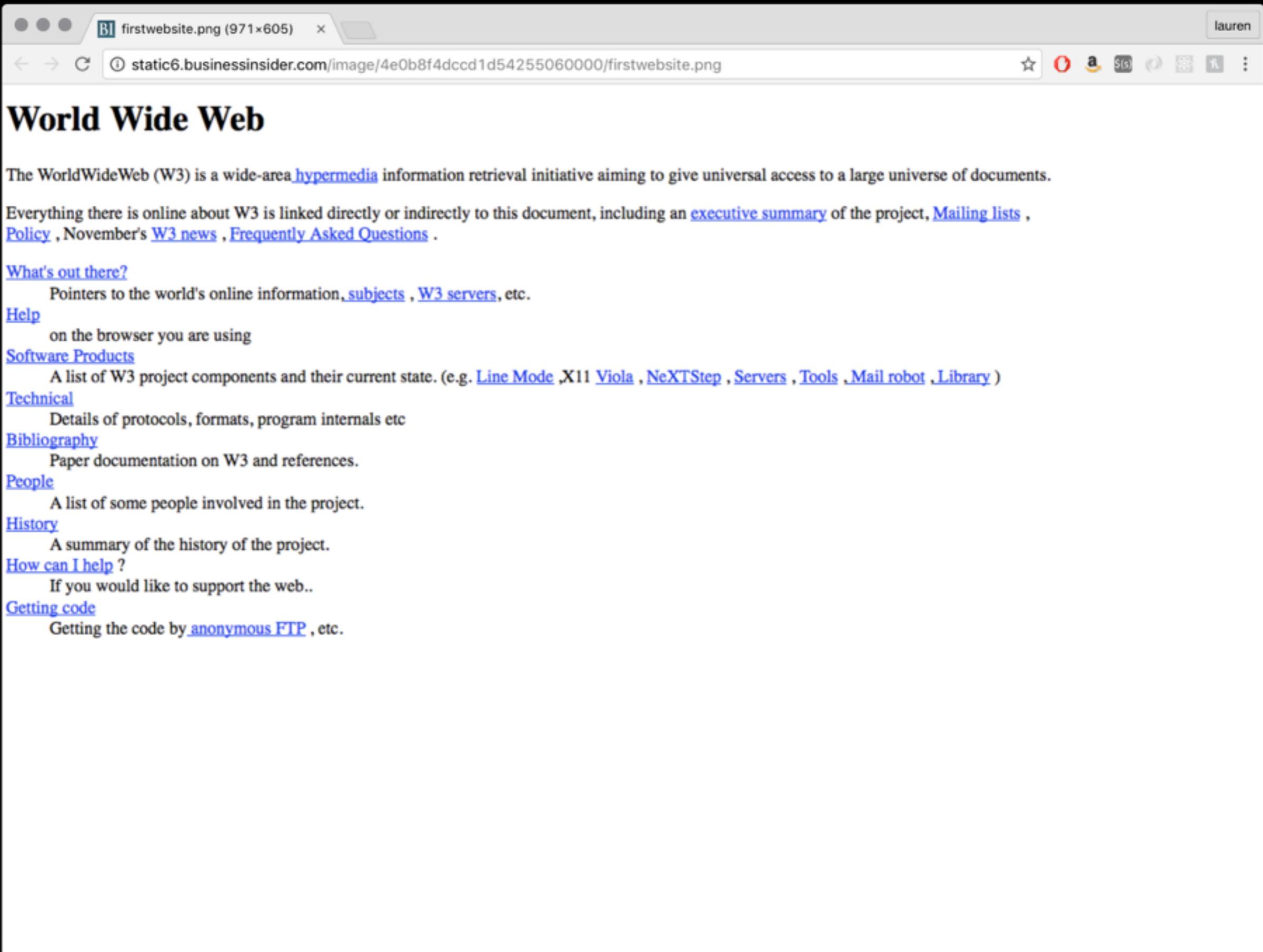


Juli 1977

*** SATELLITE CIRCUIT
 O IMP
 □ TIP
 △ PLURIBUS IMP
 (NOTE THIS MAP DOES NOT SHOW ARPA'S EXPERIMENTAL
 SATELLITE CONNECTIONS)
 NAMES SHOWN ARE IMP NAMES, NOT (NECESSARILY) HOST NAMES



Tim Berners-Lee NeXT Computer, 1991



WORLD WIDE WEB

The WorldWideWeb (W3) is a wide-area hypermedia[1] information retrieval initiative aiming to give universal access to a large universe of documents.

Everything there is online about W3 is linked directly or indirectly to this document, including an executive summary[2] of the project, Mailing lists[3] , Policy[4] , November's W3 news[5] , Frequently Asked Questions[6] .

What's out there?[7] Pointers to the world's online information, subjects[8] , W3 servers[9] , etc.

Help[10] on the browser you are using

Software Products[11] A list of W3 project components and their current state. (e.g. Line Mode[12] ,X11 Viola[13] , NeXTStep[14] , Servers[15] , Tools[16] , Mail robot[17] , Library[18])

Technical[19] Details of protocols, formats, program internals etc

<ref.number>, Back, <RETURN> for more, or Help:

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File Edit View Go Communicator Help

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- [Computers](#) (101006)
- [Dolls, Figures](#) (99138)
- [Jewelry, Gemstones](#) (128668)
- [Photo & Electronics](#) (55292)
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[Joe DiMaggio](#)

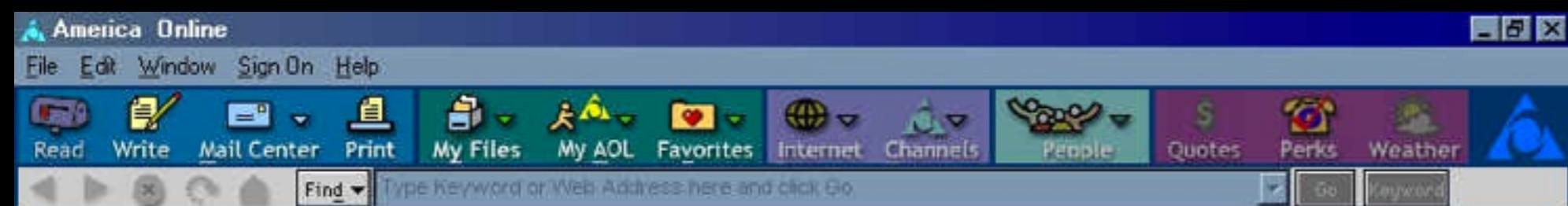
Welcome back Rossie! Bid on items to benefit the [For All Kids Foundation](#).

 Hot off the press - [eBay Magazine](#)! Get your subscription now!

 Go Local! Now you can [search within your region!](#)

stats

3,090,394 items for sale in 2,201 categories now!
Over 1.5 million page views per month!





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10 results



Google Search

I'm feeling lucky

Index contains ~25 million pages (soon to be much bigger)

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Welcome to Thefacebook!

[Welcome to Thefacebook]

Thefacebook is an online directory that connects people through social networks at colleges.

We have opened up Thefacebook for popular consumption at **Harvard University**.

You can use Thefacebook to:

- Search for people at your school
- Find out who are in your classes
- Look up your friends' friends
- See a visualization of your social network

To get started, click below to register. If you have already registered, click [here](#) to log in.

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What are you doing? Characters available: 140

[Update](#)

IM is down at the moment. We're working on restoring it. Thanks for your patience!

[Archive](#) [Recent](#)

What You And Your Friends Are Doing

 [Kierstenster](#) isn't sure she wants to move in with Liz and Alana. She will miss Babar, Niki, and some more Babar. [39 minutes ago](#) from web

 [carolliline](#) just did a great call with Lloyd Alter for my green marketing story! [about 2 hours ago](#) from [twitternific](#)

 [aprilini](#) I'm back at the office. Yeah, that's right. You heard me. Working. What an idea. I didn't say I was happy about it. [about 2 hours ago](#) from web

 [marshallk](#) watching Natalie Del Conte's Textra.Podshow.com - it's ok. Anybody else able to point me to their favorite video blogs? [about 5 hours ago](#) from web

Welcome back, [Blake Robinson](#)
Currently: Is back in NOLA and ready looking to move.
6 Direct Messages
0 Favorites
4 Friends
4 Followers
29 Updates
Send Notifications To:
C im C phone C web-only
Find by name, email, phor 




[factoryjoe.tumblr.com](#) «

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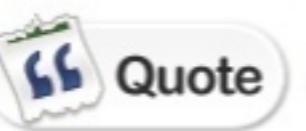
Add a new...



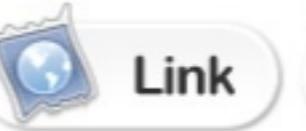
[Text](#)



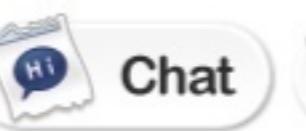
[Photo](#)



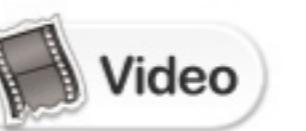
[Quote](#)



[Link](#)



[Chat](#)



[Video](#)

"80% of success is showing up."

— Woody Allen



[factoryjoe](#)

[Change my photo](#)

"Hybrid apps are no longer the future—they're now."

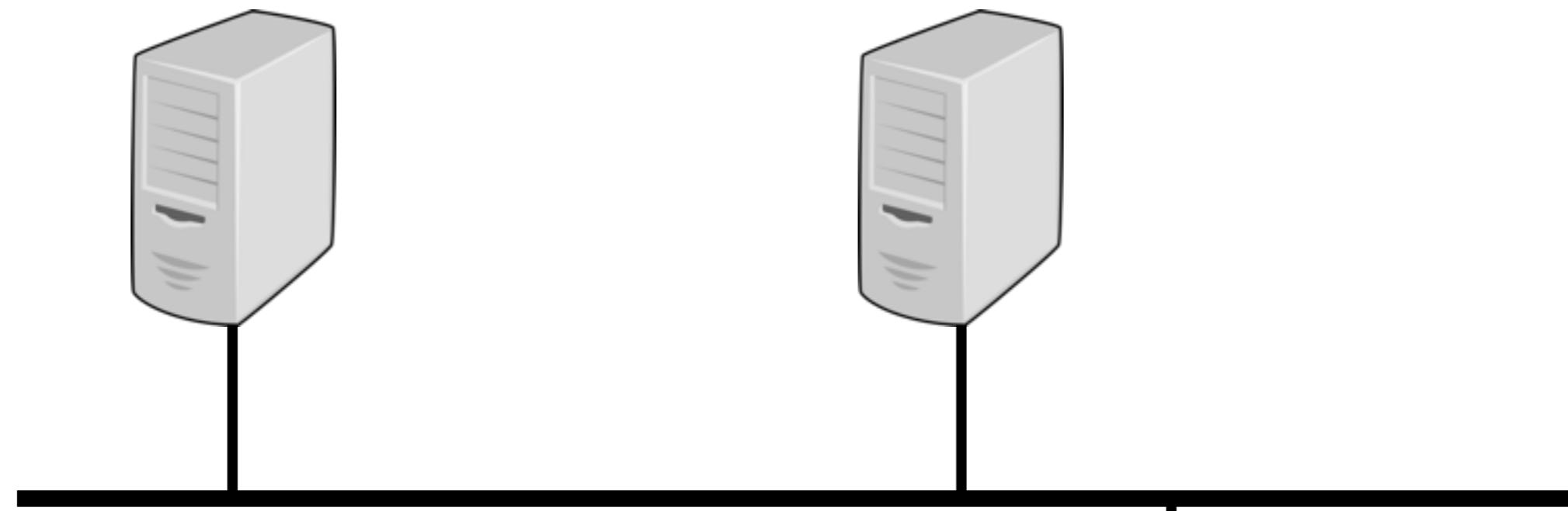
— [Brent Simmons](#)

[Twitter] Just realized how ineffective a

The image shows a composite of two screenshots. The top half is a Tumblr dashboard with a dark theme. It features a header with the 'tumblr.' logo and navigation links for Dashboard, Feeds, Settings, and Goodies. Below the header is a section titled 'Add a new...' with six buttons: Text, Photo, Quote, Link, Chat, and Video. There are two visible posts: one by 'factoryjoe' with a quote from Woody Allen, and another by 'factoryjoe' with a quote from Brent Simmons. The bottom half is an Instagram feed. It shows a header with the Instagram logo and tabs for Popular, Back, and a user profile 'kevin'. The feed displays a grid of photos from various users, including 'bill' (Philz Coffee), 'Kevin Systrom' (337 photos, 54 followers, 61 following), and 'kevin' (13h ago). One post by 'kevin' includes a link to an article titled 'FlipCool'.

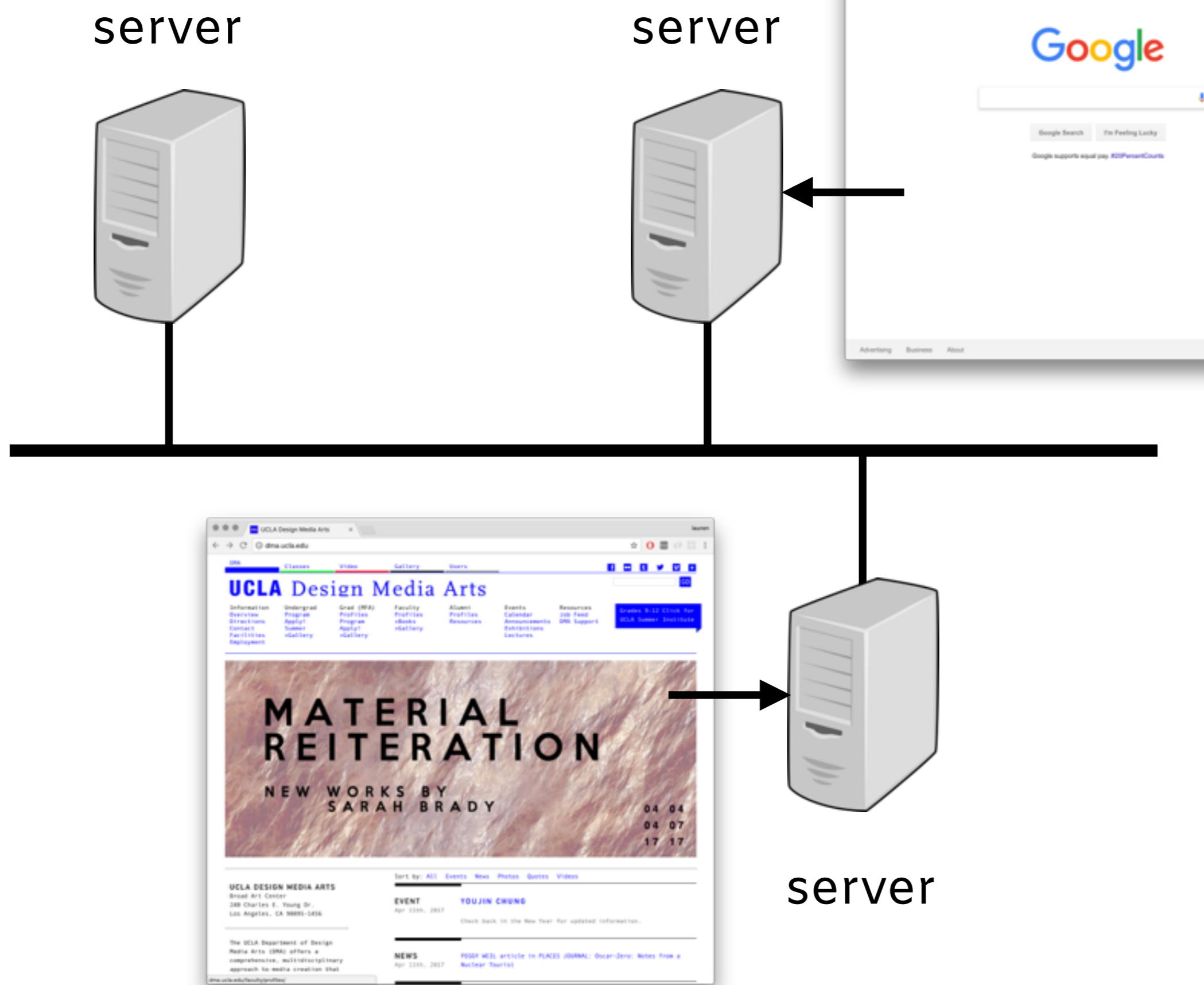


server

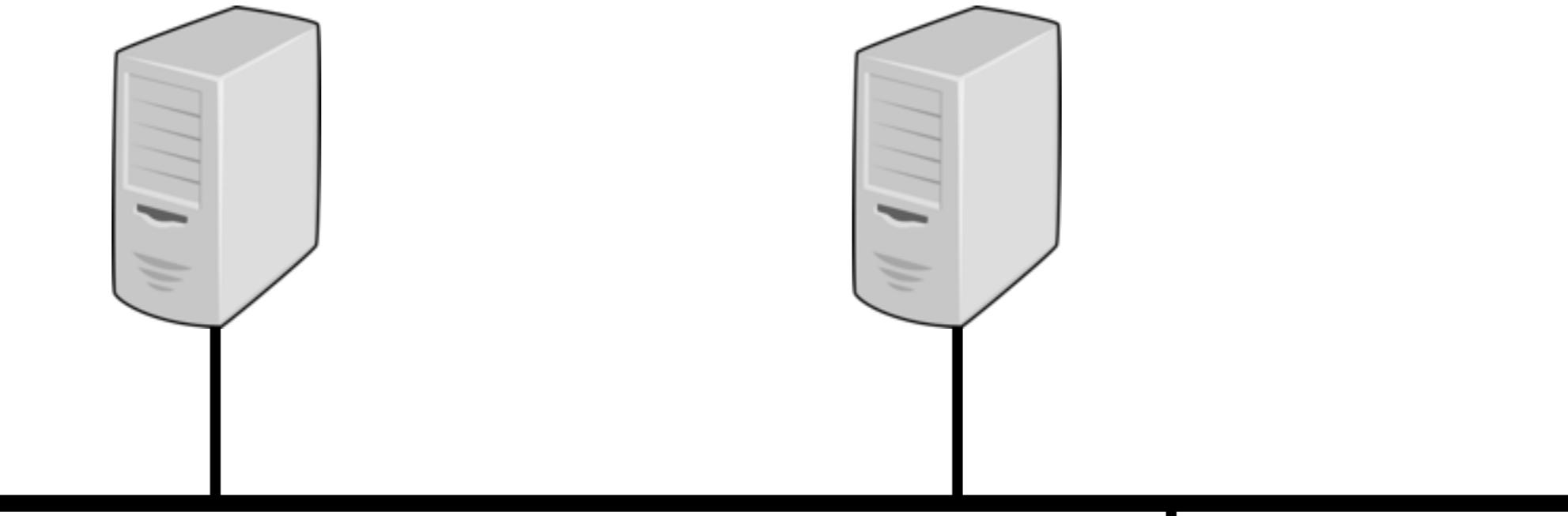


server

server



72.14.205.100
google.com



209.191.88.254
yahoo.com

69.63.176.140
facebook.com

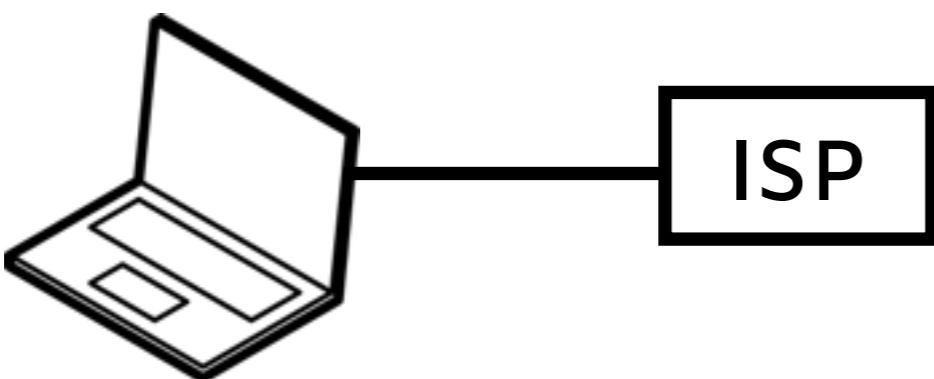
72.14.205.100

google.com



209.191.88.254

yahoo.com



client

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facebook.com



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google.com



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yahoo.com



client

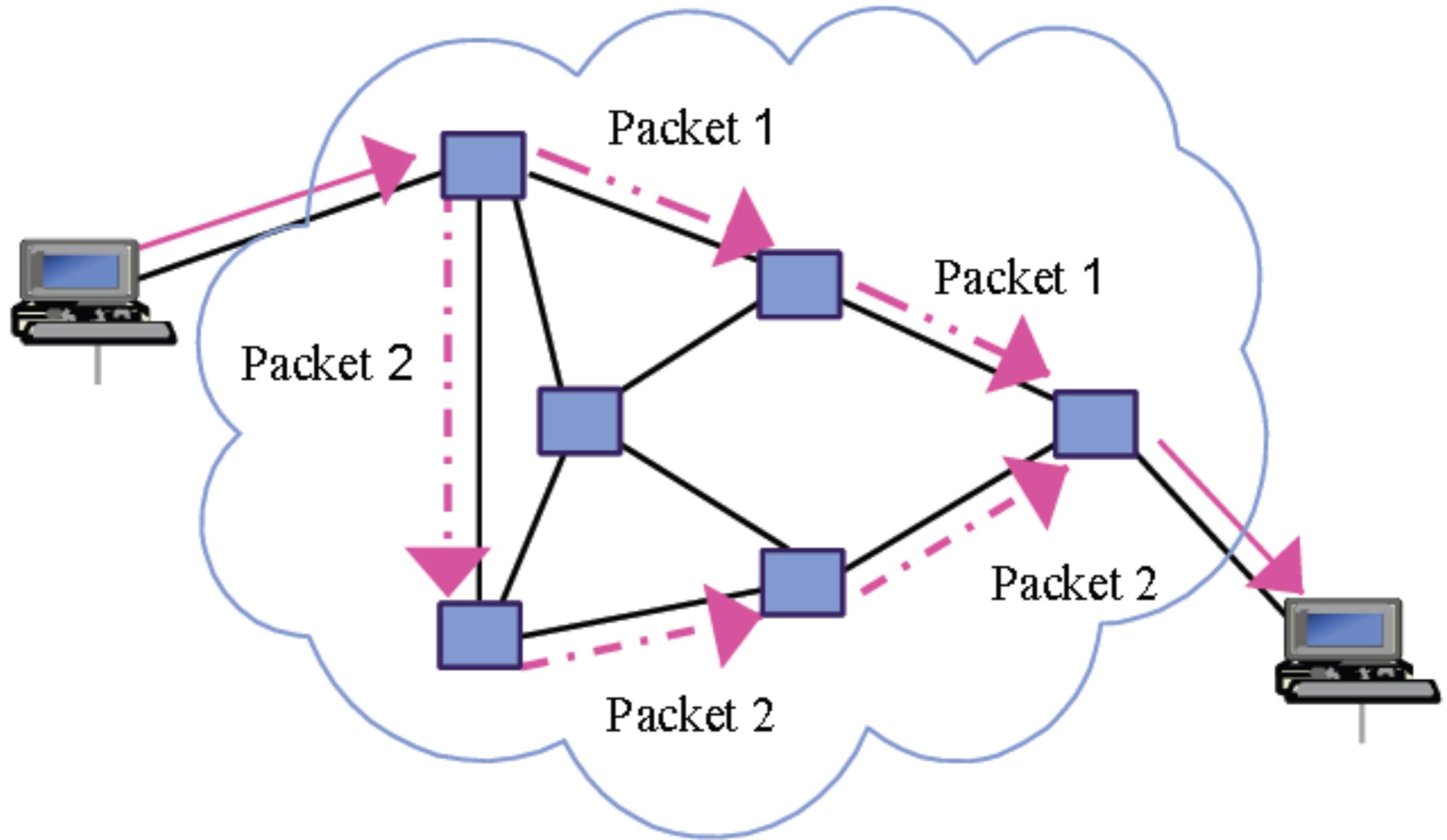
ISP



69.63.176.140

facebook.com





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google.com



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yahoo.com



ISP



client



ISP



client



69.63.176.140

facebook.com

72.14.205.100

google.com



209.191.88.254

yahoo.com



client

ISP

69.63.176.140

facebook.com



URL =
protocol + server + (path) + (filename)

HTTP vs HTTPS

<https://sidewaysdictionary.com/#/term/secure-socket-layer>

.com

.org

.edu

.net

.gov

.info

etc

.com

.us

.org

.uk

.edu

.de

.net

.au

.gov

.jp

.info

.fr

etc

etc

.com

.us

.xyz

.org

.uk

.beer

.edu

.de

.lgbt

.net

.au

.ninja

.gov

.jp

.pizza

.info

.fr

.guru

etc

etc

etc

NETWORK MEDIA

multimedia

many-to-many networking

database

automation

live / time-shifted

location/device-independent